DOCUMENT RESUME

ED 106 758 CS 001 778

AUTHOR Eberhart, Nancy A.; Lloyd, Margaret V.
TITLE Vocabulary Development in the Content Areas through Word Meaning: Individualized Inservice Packet Number VI. Teaching Teen Reading Series.
INSTITUTION Ohio State Dept. of Education, Columbus.
PUB DATE 75
NOTE 48p.; See related documents CS 001 773-781

EDRS PRICE MF-$0.76 HC-$1.95 PLUS POSTAGE
DESCRIPTORS *Content Reading; Elementary Secondary Education; *Inservice Teacher Education; Reading Development; *Reading Instruction; *Reading Material Selection; Semantics; Teaching Techniques; *Vocabulary Development
IDENTIFIERS *Teaching Teen Reading Series

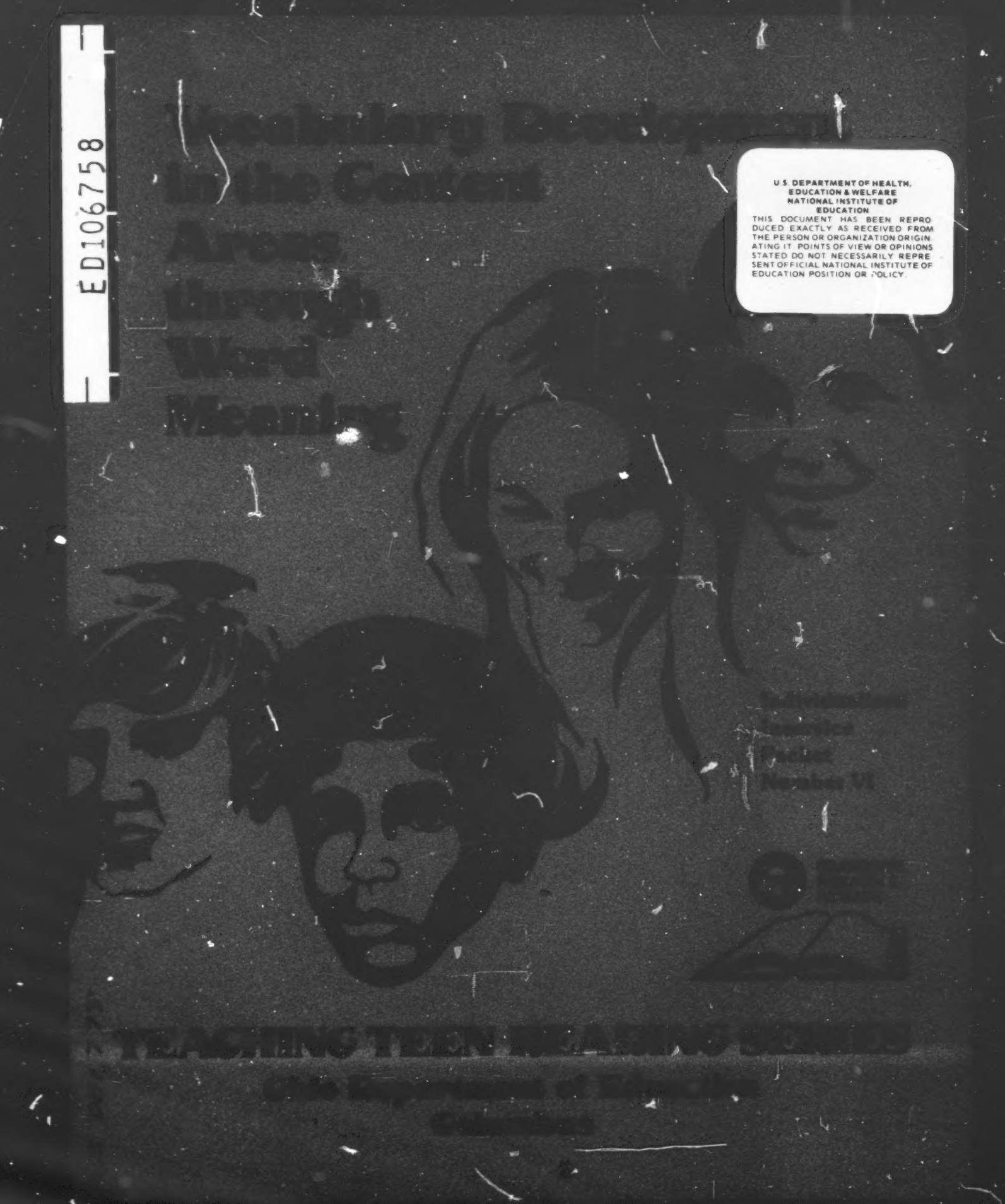
ABSTRACT

Consisting of nine individualized inservice packets, the Teaching Teen Reading Series describes reading procedures applicable to instruction in all subjects in the elementary, middle, and secondary school. This sixth packet is designed to enable the teacher to help students expand word meaning, using the technical vocabulary of their content areas, by demonstrating the criteria for selection of vocabulary words, guidelines for instruction, guides to independence, and methods of reinforcement. A self-corrective posttest, a glossary of terms, and a bibliography are also included for use by the teacher. (LL)

ED106758

Vocabulary Development in the Content Areas through Word Meanings

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.



Washington
Public
Program VII

TEACHING TEEN

STATE BOARD OF EDUCATION

John R. Meckstroth, President	Cincinnati
William H. Cossler, Vice-President	Youngstown
Martha B. Agler	Columbus
William M. Baker	Madison
Wallace E. Blake	Zanesville
Walter A. Burks, Jr.	Cleveland
Thaddeus Garrett, Jr.	Akron
Susan D. George	Canton
William M. Judd	Cincinnati
Everett L. Jung, M.D.	Hamilton
Robert A. Lyons, Sr.	Dayton
Roy D. McKinley	Coshocton
Ward M. Miller	Portsmouth
Gene Norris	Berea
David R. Rittenhouse	Toledo
Anthony Russo	Mayfield Heights
Thomas J. Russo	Maple Heights
Ruth S. Schildhouse	Columbus
Wayne E. Shaffer	Bryan
Cecil M. Sims	Piqua
Robert W. Walker	Adena
Robert E. Williams	Xenia
Martha W. Wise	Elyria

Martin W. Essex
Superintendent of Public Instruction

Franklin B. Walter
Deputy Superintendent

Prepared by:
Nancy A. Eberhart—Margaret V. Lloyd
Reading Consultants

Virginia L. Kunkle
Director, Division of Educational
Redesign and Renewal

FOREWORD

The American dream of opportunity through education has been an inspiration and a reality to millions and millions. Equipping students with the skills of reading is fundamental to this essential contribution of our schools. It is well recognized that the ability to read and the active use of reading are cornerstones supporting the foundation of lifetime learning. Personal fulfillment, positive self-concept, participating citizenship, and meeting the demands of job and society are dependent upon effective reading.

All teachers are teachers of reading, individualizing and personalizing learning of all students on the ability spectrum. Without the acquisition of reading skills, the content of any subject area remains untapped and inaccessible between the covers of books. The students presently enrolled in our schools will live part of their lives in the 21st century. The need is to assure them of reading skills with which to cope with the rapid and ever-expanding stockpile of information and book-stored knowledge.

The Department of Education is the agency through which the Ohio General Assembly expresses its response to the will of the citizenry on matters of education. Reflective of this, legislation was enacted which made provision for the department to make available inservice materials and services for elementary and secondary school teachers. Hence, the Division of Educational Redesign and Renewal is responsible for the development of stand-free inservice education materials which may be used individually by teachers or by teacher leaders working together with small groups of colleagues. The materials are designed to give condensed professional information which will meet an instructional need or interest.

Because reading incorporates the principles of accountability for all teachers, **The Teaching Teen Reading Series** was prepared as a helpful resource for the teachers of upper elementary, middle and secondary schools. The content fuses with the use of any print materials supplied within the schools.

The post-Vietnam period offers an opportunity—and an imperative—to strive for excellence surpassing all prior achievements in our nation's scholastic history. It is our hope that these and other inservice materials will be beneficial to teacher endeavor toward achieving that excellence.

Martin W. Essex

ACKNOWLEDGMENTS

The staff of the Division of Educational Redesign and Renewal expresses appreciation to the members of the teacher reaction panel for their critique of draft editions in terms of content, format, and practicality.

Rosemary Bonial—Bellaire Public Schools
Sr. Donna Capuano—St. Robert School, Euclid
Elizabeth Cisko—Peoples Junior High School, Cincinnati
Keith Clark—Admiral King High School, Lorain
Steven Fark—Kettlersville Elementary School, Kettlersville
Jerry Ledbetter—Hawthorne Boone Elementary School, Lorain
Sr. Marian Leonard—The Cleveland Diocese
Richard Mehl—West Bellaire Elementary School, Bellaire
Faith Mitchell—Fulton Avenue Elementary School, Columbus
Marba Wojcicki—Berry Junior High School, Columbus

■

Gratitude is expressed to the publishing companies for permission to use the excerpted content cited in the examples of this publication. Since these example sections are copyrighted, they may not be reproduced in any form without written permission from the identified publishers.

■

The activity which is the subject of this report was supported in whole or in part by the U.S. Office of Education, Department of Health, Education, and Welfare. However, opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

CONTENTS

CRITERIA FOR SELECTION 7

GUIDELINES FOR INSTRUCTION 9

GUIDES TO INDEPENDENCE

1. Within-Text Aids 15
2. Using Word Lists and Glossaries 21

REINFORCEMENT

1. Multiple Meaning 24
2. Categorizing 25
3. Word Puzzle 27
4. Analogies 28
5. Connotations 31
6. Understanding Relationships 34
7. Vertical Vocabulary Development 35

GLOSSARY 40

SELF-CORRECTIVE POST TEST 41

BIBLIOGRAPHY 45

INTRODUCTION

The purpose of this **individualized Inservice Packet** is to enable the teacher to help students expand word meaning, using the technical vocabulary of their content areas. The content demonstrates the criteria for selection of vocabulary words, guidelines for instruction, guides to independence, and methods of reinforcement. (The information relating to vocabulary development through word recognition skills is contained in Packet V of the series.)

Teachers, using the basic principles of word recognition, can adapt these vocabulary meaning techniques to the content being read and to the reading skill differences represented within the student group.

The content of this packet does not refer to any particular print material but is intended to be used with the books, reference sets, periodicals and other resources on hand.

To receive the maximum benefit from the packet, it is recommended that teachers apply the sections to the textbook generally used by their students. The ideas presented in the packet are intended to create particular teaching situations to meet the reading needs of particular students.

The INDIVIDUALIZED INSERVICE PACKET is a practical resource for teachers who have a question regarding reading instruction which requires a condensed, readily usable answer. It is a means for securing a segment of information for immediate application in the classroom as compared to researching many sources.

A self-instruction process is incorporated beginning with steps of securing instructional information, including suggested uses in content teaching situations, and followed by a self-corrective post evaluation. The packet content is developed to provide the understandings summarized in the post evaluation. This form may be reproduced for the teacher's personal use. The response may lead to continued study of the packet or to reading of the literature included in the bibliography.

VOCABULARY DEVELOPMENT IN THE CONTENT AREAS THROUGH WORD MEANING

Part I CRITERIA FOR SELECTION

OBJECTIVE

To enable the teacher to select the appropriate technical vocabulary to teach before directed silent reading.

INSTRUCTIONAL CONCEPT

By necessity, the content teacher deals with vocabulary development in the particular subject so that meaning and understanding are provided for the student. The selection of vocabulary to be pre-taught stems from the subject being studied. The content teacher has several sources from which to locate the words to be emphasized.

The textbook(s) being used by the class provides one of the most available sources for vocabulary. When the pre-taught words correspond to those which the student meets in his text, greater success and more meaningful comprehension accompany the reading.

Resource materials made available to the student and curriculum guides for teachers provide an excellent supply of technical vocabulary for pre-teaching. Explanations of technical vocabulary given during introductory presentations and discussions aid the student's comprehension.

Content area vocabulary development is functional in that it improves comprehension. Along with direct teaching of selected vocabulary, the teacher instructs and encourages the students in the consistent use of the direct and indirect assistance. Direct assistance existing in the content includes: context clue, structure, and sound. Indirect assistance is available by the efficient use of the dictionary and the text glossary.

It is vital for the teacher to be selective in the choice of words to pre-teach. There are three main criteria for this selection of vocabulary:

Key Concepts
Relative Value
Student's Competence

Key Concepts

Vocabulary words selected are those which represent or support the major concepts needed by the student for the comprehension of the content. The technical vocabulary representing these key concepts makes up the list of words to be introduced prior to the reading of the selection.

Relative Value

If the content of the selection is very important to an understanding of the year's units, many concepts must be stressed. When the content is new, of major importance, or complex, many concepts are stressed with a greater number of vocabulary words to be taught and understood. As a result, more time is spent on vocabulary development for this type of lesson.

The relative value is to be considered within the various sections of the content. Within each section, the teacher identifies the key concepts and emphasizes their understanding through vocabulary development.

Student's Competence

The student's competence determines the final selection of words which should be pre-taught. The teacher needs to consider the student's intellectual ability, reading achievement level, experience in the subject, and experience in the unit.

When the teacher bases the vocabulary choices on these three criteria, the selection of words to be pre-taught becomes realistic. Through an understanding of the major concepts, the student will better learn the language of the subject content.

Although the material may be adjusted to meet the student's reading level, certain technical vocabulary must be taught. Particular concepts can only be taught through using the technical vocabulary.

The teacher selects key words to teach carefully to the entire group. Word recognition skills (context clues, structure, sound, and dictionary) are used to introduce each word, appropriately.

Students are helped individually with problem words during silent reading. Knowing the concept words, the student is encouraged to use context clues to comprehend the total meaning.

The remaining words are pronounced for the students. Dependent upon the amount of aid provided in the text, the teacher may give the meaning. Even though these words are not actually taught, the pronunciation of these words assists to make them part of the student's speaking and listening vocabularies.

Part II GUIDELINES FOR INSTRUCTION

OBJECTIVE

To enable teachers to help students expand word meaning, using the technical vocabulary of their content areas.

INSTRUCTIONAL CONCEPT

Vocabulary development through word meaning involves the reinforcement and extension of comprehension. Words need to be used numerous times in meaningful situations before they become a part of the student's listening and reading vocabularies. Memorization of key words prior to reading is not sufficient. Involvement through class discussion will encourage the integration of these words into the student's speaking vocabulary. Greater retention occurs when reinforcement is provided in a meaningful context.

SUGGESTED APPLICATION WITH LEARNERS

The transfer of learning occurs most successfully when the skill to be retained and used is taught in the situation where it is immediately needed. This principle applies especially to vocabulary development since each content area has its own specialized vocabulary and basic concepts unique to the subject.

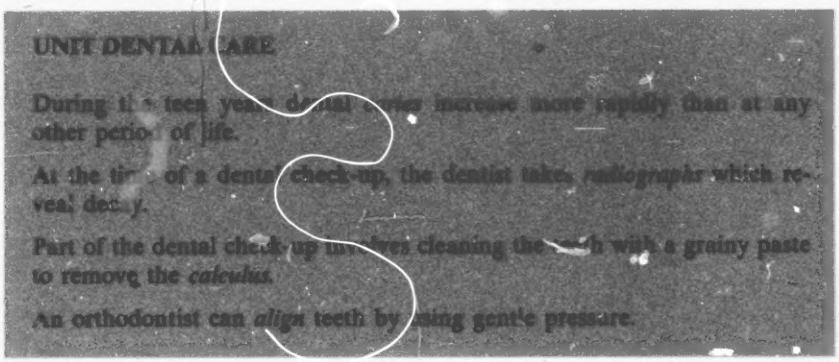
The Directed Reading Thinking Activity (DRTA) may be used to improve vocabulary as well as comprehension skills. Generally, this approach has five inter-related components: 1) readiness, 2) guided silent reading, 3) discussion emphasizing comprehension skills, 4) rereading orally and/or silently for critical evaluation, and 5) enrichment involving application to other areas. Content teachers can use this procedure. Particular attention is given to the readiness component, as a vehicle for vocabulary development.

Suggested Teaching Tactic

After selecting the key vocabulary, teach only those conceptual meanings unknown to the learner. Understanding may be demonstrated by the ability to 1) supply a synonym for the word, 2) use it in a suitable context, 3) define it, or 4) perform a physical action demonstrating the meaning.

1) Prior to beginning a unit of study, place summary statements containing key concepts on the chalkboard.

Content Example—Health


UNIT DENTAL CARE
During the teen years dental decay increase more rapidly than at any other period of life.
At the time of a dental check-up, the dentist takes radiographs which reveal decay.
Part of the dental check-up involves cleaning the teeth with a grainy paste to remove the calculus.
An orthodontist can align teeth by using gentle pressure.

Adapted from: *Health and Growth: 7*, Richmond and others (Scott, Foresman and Company, 1972), 33-39.

The learners are encouraged to provide another word that means about the same thing, a synonym, for the identified concept. Appropriateness may be judged by class discussion. Listing the synonyms on the chalkboard will help to create the conceptual meaning.

caries
ruin
deterioration
rottenness
decay
decomposition
impairment

radiograph
x-ray
gamma ray
photograph
picture

calculus
tartar
hard, yellow substance
concretion

align
line
aline
position

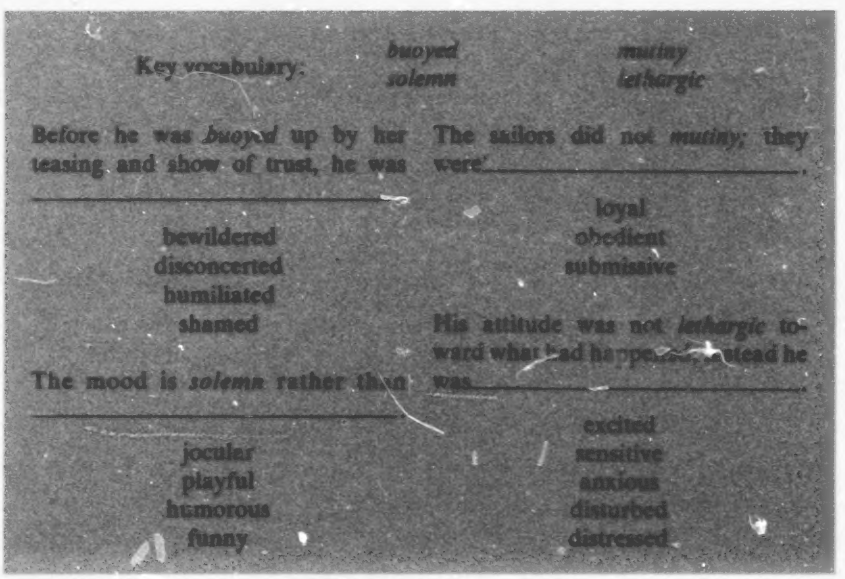
Suggested Criterion Referenced Measurement

Given a key concept, the learner indicates his understanding of the meaning of the word by providing a synonym for the concept.

Another way in which a concept may be discriminated is to teach word opposites, or antonyms. Knowledge is broadened by knowing not only what a concept is but also what it is not.

During the readiness part of a lesson (the time when the learner is prepared for reading), give syntactic frames orally and encourage the learner to supply the word which elicits the opposite condition. List suggested antonyms on the chalkboard.

Content Example—Literature



Suggested Criterion Referenced Measurement

Given a key concept, the learner demonstrates his understanding of the meaning of the word by providing an antonym for the concept.

2) The learner's understanding of a word may be demonstrated by his ability to use it in an appropriate context.

Direct the student's attention to the context in which the word is found. The learner places the correct word in each blank according to his determination of the meaning appropriate to the context.

Content Example—Music

array *modifiers* *...ops*

In the past fifteen years the synthesizer has been used increasingly to produce electronic music. In some ways it might be compared to an electronic organ with _____ that imitate sounds of the violin, the flute, and so on. But the synthesizer is far more, for through generators and _____ it has the ability to produce an infinite variety of sounds. Oscillators, filters, mixers, sequencers, and other units are mounted close together and inter-connected. The performer (or often several people working together as performers) must choose from the _____ of sounds and effects.

Excerpt: *Exploring Music 7* Landis (Holt, Rinehart and Winston, Inc., 1971), 30.

Suggested Criterion Referenced Measurement

Given any content word, the learner demonstrates his understanding of the meaning by using it in an appropriate context.

3) Ask the learner to define a key concept in his own words. The ability to paraphrase an idea is an indication of understanding.

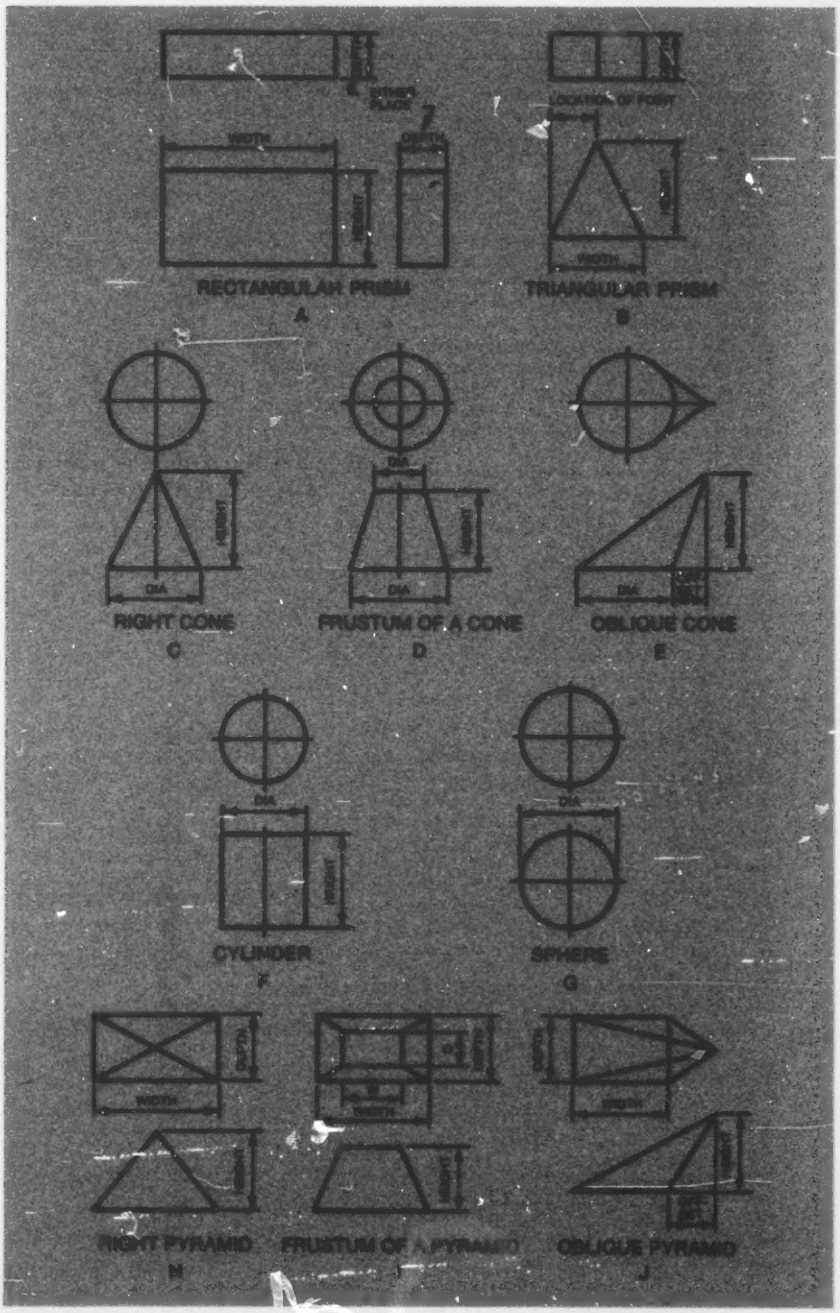
Encourage the student to associate a concept with a mental picture of that concept. Provide opportunities for each learner to explain his mental picture.

Content Example—Basic Industrial Drafting

Picture the basic shapes which make up the following objects. It will then be easier to decide where to place the dimensions.

A. rectangular prism
B. triangular prism
C. right cone
D. frustum of a cone
E. oblique cone
F. cylinder
G. sphere
H. right pyramid
I. frustum of a pyramid
J. oblique pyramid

After the student has orally described his mental picture, audio-visual materials can be presented to encourage self-appraisal and reinforcement. The use of some types of media to teach a concept will help the learner to move from specific illustrations to the generalized concept.



Adapted from: *Basic Industrial Drafting*, Spence (Chas. A. Bennett Co., Inc., 1974) 136.

Suggested Criterion Referenced Measurement

Given any content word, the learner indicates his understanding of the word by defining it in his own words.

4) The learner may show his understanding of a key concept by enacting his idea of the meaning.

A conceptual understanding is developed through exposure to selected experiences which form the basis for the concept. Later the specific content is examined to determine the appropriate meaning.

Given adequate materials, groups of learners may be given the opportunity to show the extent of their understanding of key concepts.

Content Example—Science

Concept—*desalinization*

Materials:

heat lamp
glass bowl
pie plate
saucer
salt water

Guidance—

Place the heat lamp 8-12 inches above a glass bowl which is inverted over a saucer of salt water. The saucer of water lies on a pie plate. Place the glass bowl on a table and explain what happens over a period of a day.

Key questions:

1. Where is the water coming from that is condensing on the inside of the glass bowl?
2. Describe the taste of the water collecting in the pie plate.
3. Compare it with fresh water.
4. What are some other experimental methods for producing fresh water from ocean water?

Adapted from: *Modern Science*, Blanc and others (Holt, Rinehart and Winston, Inc. 1971), 128 and 129.

Suggested Criterion Referenced Measurement

Given any content word, the learner demonstrates his understanding of the meaning.

Part III GUIDES TO INDEPENDENCE

OBJECTIVE

To enable the teacher to direct the student's attention to those aids to meaning provided in the textbook.

INSTRUCTIONAL CONCEPT

Consider the extent to which aid to meaning is provided in the textbook used by the student.

Checklist

_____italicized words
_____parenthetical definitions
_____contextual clues
_____marginal notations
_____footnotes
_____illustrations
_____pronunciation keys
_____word lists
_____glossaries

Focus the student's attention on these devices so that he will use them to foster independent learning in the expansion of word meaning. Availability does not guarantee increased comprehension. Active use is encouraged.

SUGGESTED APPLICATION WITH LEARNERS

I WITHIN-TEXT AIDS

Within-text aids have the potential for direct assistance in vocabulary development. Teach students how to use these devices.

1. italicized words
2. parenthetical definitions
3. contextual clues
4. marginal notations
5. footnotes
6. illustrations
7. pronunciation keys

Suggested Teaching Tactic

1. **italicized words**

Utilizing literal questions, direct the learner's attention to italicized words within the text.

Content Example—World History

By this treaty China was forced to give the island of Hong Kong to the British, to whom it still belongs. The Chinese also had to pay twenty-one million dollars for the opium they had destroyed, and five Chinese ports were opened to trade. The Chinese tariff was to be set by the foreign powers; and after a special treaty between the United States and China in 1844, all citizens of foreign powers were to enjoy the right of *extraterritoriality*. This means that United States citizens and Europeans in China were not to be tried by Chinese courts nor punished by the Chinese. Instead, they were to be tried by special courts set up and run by their own country.

Excerpt: *Man's Story*, Wallbank (Scott, Foresman and Company, 1964), 425.

What word describes the right that individuals visiting another country have with respect to the application of the local law?

or

What does the word *extraterritoriality* mean?

Suggested Criterion Referenced Measurement

Given an appropriate content selection, the student will list all italicized words and their definitions where they are provided.

2. **parenthetical definitions**

Select sentences from the content where this device is used. List them on the chalkboard prior to reading. The student is asked to read to find the definitions and complete the parenthetical blank.

Content Example—Science

CHAPTER 3 • THE RESOURCES OF THE EARTH

1. The carbon (_____ __ _____) combines with the oxygen to form carbon dioxide gas.
2. This is reduced (_____ _____) to carbon monoxide by contact with the hot coke.

3. The iron ore, usually an oxide, is mixed in the furnace with coke (_____) and with limestone.

Adapted from: *Modern Science*, Blanc and others (Holt, Rinehart and Winston, Inc., 1971), 66 & 67.

Suggested Criterion Referenced Measurement

Given a list of key concepts which have parenthetical definitions, the student will locate them within a given content selection and write their definitions.

3. contextual clues

An examination of the context in which a word is found is frequently necessary in order to develop both the concept and its specific meaning.

Content Example—Art

Soft-ground **is a variation of** ***etching*** **where tallow is added to the wax. Then it is covered with a fine paper. Next, draw on the paper with a pencil. When the paper is pulled away, the wax or ground will adhere to it where the pencil has pressed.**

At this point the learner has several options for the meaning of the word *soft-ground*. However, when the next sentence is read the learner can deduce its specific meaning in this instance.

This grainy effect is called a ***soft-ground etching.***

Adapted from: *All About Art*, Baker (Fine Arts Publication, 1971), 60.

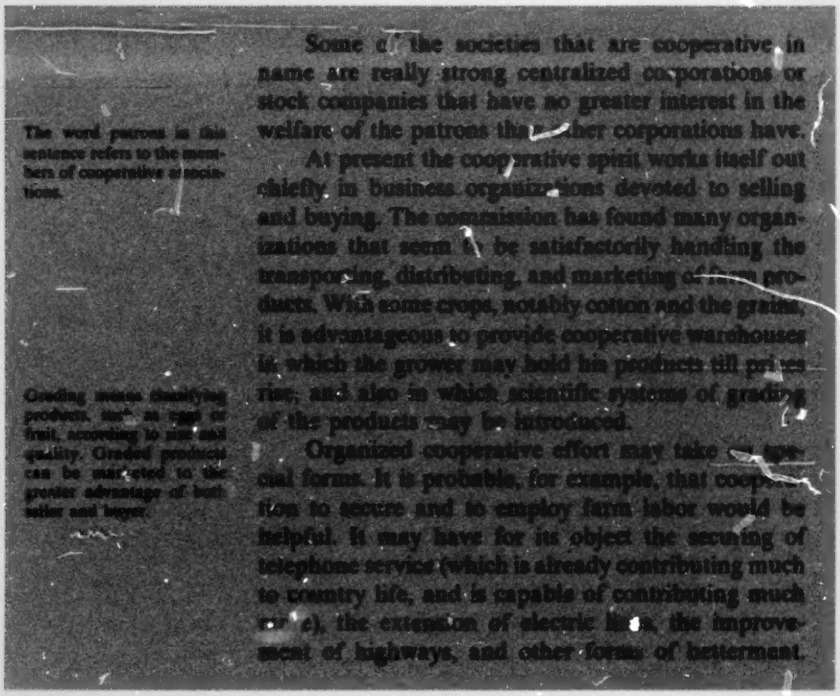
Suggested Criterion Referenced Measurement

Given a list of key concepts, the student will determine their meaning from contextual clues provided in an appropriate content selection.

4. marginal notations

When an author uses this device to expand the meaning of key concepts, refer to it during all parts of the lesson. During the prereading sequence, it is significant as an "advance organizer" for student reading. Marginal notations, whether key vocabulary or summarizing statements, can serve to provide guidance and reinforcement while reading. Following reading, notations in the margins suggest concepts which may be further explored as a reflection and/or enrichment activity.

Content Example—History



Some of the societies that are cooperative in name are really strong centralized corporations or stock companies that have no greater interest in the welfare of the patrons than other corporations have.

The word patrons in this sentence refers to the members of cooperative associations.

At present the cooperative spirit works itself out chiefly in business organizations devoted to selling and buying. The commission has found many organizations that seem to be satisfactorily handling the transporting, distributing, and marketing of farm products. With some crops, notably cotton and the grains, it is advantageous to provide cooperative warehouses in which the grower may hold his products till prices rise, and also in which scientific systems of grading of the products may be introduced.

Grading means classifying products, such as eggs or fruit, according to size and quality. Graded products can be marketed to the greater advantage of both seller and buyer.

Organized cooperative effort may take many special forms. It is probable, for example, that cooperation to secure and to employ farm labor would be helpful. It may have for its object the securing of telephone service (which is already contributing much to country life, and is capable of contributing much more), the extension of electric lines, the improvement of highways, and other forms of betterment.

Excerpt: *A New History of the United States*, Bartlett and others (Holt, Rinehart and Winston, Inc., 1969), 404.

Prereading

Which word describes the classifying of products?

Compare this definition of "to grade" with other meanings you know.

Guidance

Read to determine how products can be marketed to the greater advantage of both seller and buyer.

Reflection and/or Enrichment

Which role would you rather assume—seller or buyer—and why?

Explore some of the scientific systems of grading in operation today.

Suggested Criterion Referenced Measurement

Given content in which marginal notations appear, the student will list and define in his own words the key vocabulary for a selection.

5. **footnotes**

As a prereading activity in vocabulary development, present the student with sentences from the selection leaving out the

key term. Direct the student to complete the sentence with the appropriate vocabulary word as found in the footnotes throughout the given amount of material. This also provides an opportunity for assessing the student's degree of understanding. Further conceptual development may be indicated for some students.

Content Example—Literature

He had a mania[5] for being in the right. The slightest hint of disagreement, from anyone, on the most trivial point, was enough to set him off on a harangue[6] that might last for hours, in which he proved himself right in so many ways, and with such exhausting volubility, that in the end his hearer, stunned and deafened, would agree with him, for the sake of peace.

It never occurred to him that he and his doing were not of the most intense and fascinating interest to anyone with whom he came in contact. He had theories about almost any subject under the sun, including vegetarianism,[7] the drama, politics, and music; and in support of these theories he wrote pamphlets, letters, books . . . thousands upon thousands of words, hundreds and hundreds of pages. He not only wrote these things, and published them—usually at somebody else's expense—but he would sit and read them aloud, for hours, to his friends and his family.

He wrote operas; and no sooner did he have the synopsis[8] of a story, but he would invite—or rather summon—a crowd of his friends to his house and read it aloud to them.

5. **MANIA:** an extreme or unreasonable enthusiasm.
6. **HARANGUE:** a loud, noisy speech.
7. **VEGETARIANISM:** the belief in eating only vegetables, fruits, grains, and nuts.
8. **SYNOPSIS:** a summary, outline.

Excerpt: *Voices in Literature, Language and Composition 2*, Cline, Williams, Donlan (Ginn and Company, 1969), 211.

1. He had a _____ for being in the right.
2. He had theories about almost any subject under the sun, including _____, the drama, politics, and music;
3. He wrote operas; and no sooner did he have the _____ of a story, but he would invite . . . a crowd of his friends to his house and read it aloud to them.
4. The slightest hint of disagreement . . . was enough to set him off on a _____. . . in which . . . in the end his hearer, stunned and deafened, would agree with him . . . .

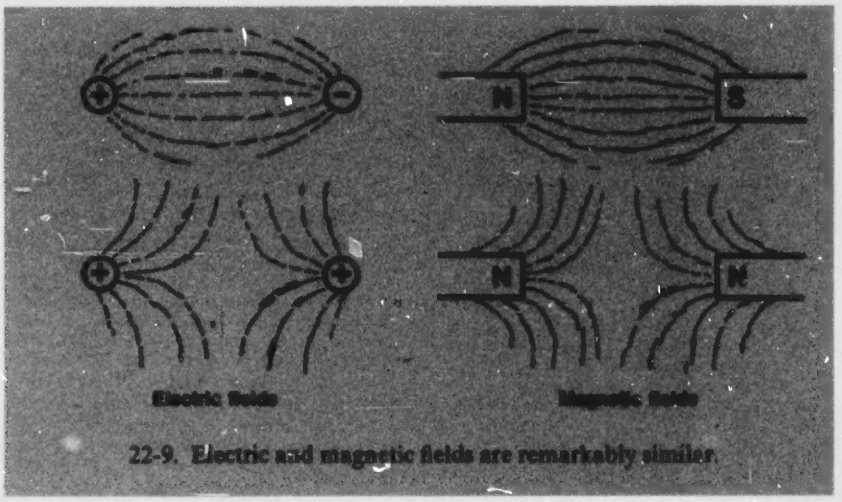
Suggested Criterion Referenced Measurement

Given a content selection where footnotes contain key vocabulary, the student will place them in the contextual statement.

6. **illustrations**

Direct the student's attention to the "reading" of illustrations. Provide guidance so that he may be made aware of the important concepts that are represented here. Part of the prereading experience will include an examination of all illustrations.

Content Example—Science



22-9. Electric and magnetic fields are remarkably similar.

Excerpt: *The Physical World*, Brinckerhoff, Cross, Watson, Brandwein (Harcourt, Brace and World, 1968), 377.

1. Describe the "field" pictured above.
2. What happens within a magnetic field with respect to the poles?
3. How are electric and magnetic fields similar?

Suggested Criterion Referenced Measurement

Given vocabulary which is defined in illustrations, the student will state the respective definitions in his own words.

7. **pronunciation keys**

This aid will be especially meaningful for the student who relies on sound and the dictionary for word recognition. Sometimes the pronunciation will appear in a footnote with the meaning and other times the pronunciation will immediately follow the word.

Despite the predominance of sound in this technique, couple this approach with meaning. A matching exercise is one type of activity.

Provide the student with the pronunciations of words and direct him to match these with their definitions. Then have him find the word in the text and write it as it is spelled.

Content Example—Literature

. . . at the stables of the Provincale Milk Company at five o'clock. The wagon would be loaded and Joseph hitched to it. Pierre would call, *"Bon jour, vieil ami,"* as he climbed into his seat and Joseph would turn his head and the other drivers would say that the horse would smile at Pierre. Then Jacques, the foreman, would say, "All right, Pierre, go on," and Pierre would call softly to Joseph, *"Avance, mon ami,"* and this splendid combination would stalk proudly down the street.

2. BON JOUR, VIEIL AMI (bôn zhûr' vyā yā mē;): Hello, old friend.
3. AVANCE, MON AMI (e vāns' mô' nā mē'): Forward, my friend.

Excerpt: *Voices in Literature, Language and Composition* 2, Cline, Williams, Donlan (Ginn and Company, 1969), 409.

Content Example—Science

WHAT CAUSES CLOUDS?

Cloud formation depends largely upon the humidity and temperature of the air. Most clouds form when rising air cools. There are three distinct types of clouds: *cirrus* (SIHR-uhs), *stratus* (STRAY-tuhs), and *cumulus* (KYOO-myoo-luhs). Each of them has a different appearance and is easily recognized.

1. SIHR-uhs	A. layers
2. STRAY-tuhs	B. dome-shaped
3. KYOO-myoo-luhs	C. wispy curls

Adapted from: *Modern Science*, Blanc and others (Holt, Rinehart and Winston, 1971), 142.

Suggested Criterion Referenced Measurement

Given only the pronunciation of key vocabulary, the student will match it with the correct definition. The student will then write the word as it is spelled.

SUGGESTED APPLICATION WITH LEARNERS

2 USING WORD LISTS AND GLOSSARIES

Not all textbooks provide aid within the material. However, key vocabulary may be explicated and found either in word lists or glossaries. The reading performance of students who use these devices will be much more satisfactory.

Suggested Teaching Tactic

Use Word Lists which appear before a unit of study or at the end of a content selection during the prereading sequence of a lesson. Familiarizing the student with these concepts and their specific meanings will help to provide a framework for reading. One approach is to direct the student to skim, or look quickly at a page, in order to locate the given key words. Even though the material is not read thoroughly the student will collect clues as to the text. Key questions and purpose setting will also surface.

Ask the student to skim the content and construct his own word list for the chapter.

Content Example—Social Studies

Here is a list of words which appear in Chapter 16—"Our Concern for Human Rights." Do not read the content, but merely try to locate the words as quickly as possible. Write the page numbers, indicating where you found the words. Then, list the questions that you now have about the chapter. These will establish your purposes for reading.

stockholder_____
civil service_____
public utility_____
prohibition_____
panics_____
muckrakers_____

Key Questions:

_____
_____
_____
_____
_____

Suggested Criterion Referenced Measurement

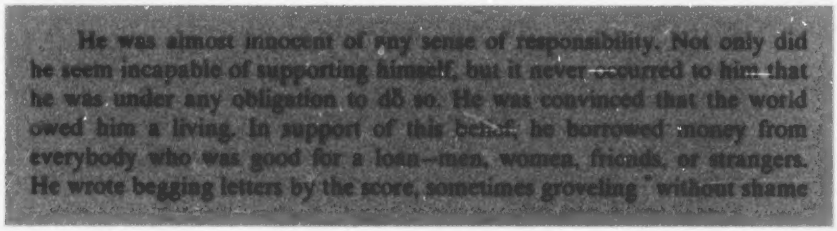
Given a word list prior to reading, the learner will locate the vocabulary within the content. He will then write key questions which have resulted from his skim for vocabulary.

Suggested Teaching Tactic

Explain that the glossary is unlike the dictionary which lists all words. A glossary only lists some of the more difficult words in the textbook. Encourage the student to turn to the glossary for words he does not know. For other words, the dictionary may have to be consulted.

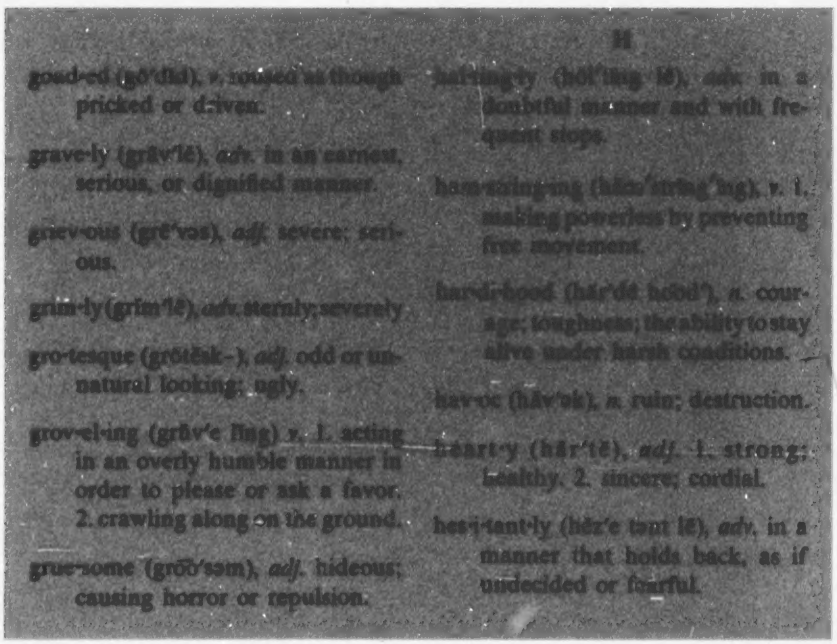
Some textbooks provide a cue within the text to let the student know that a word can be found in the glossary. To promote the use of this aid, direct the student to locate words with a cue beside them, find their meaning in the glossary, and write the definition in his own words.

Content Example—Literature



He was almost innocent of any sense of responsibility. Not only did he seem incapable of supporting himself, but it never occurred to him that he was under any obligation to do so. He was convinced that the world owed him a living. In support of this belief he borrowed money from everybody who was good for a loan—men, women, friends, or strangers. He wrote begging letters by the score, sometimes groveling° without shame

Notice the use of the cue symbol (°) following the word **groveling.** This alerts the student.



goad·ed (gō'did), *v.* urged as though pricked or driven.

grave·ly (grāv'lē), *adv.* in an earnest, serious, or dignified manner.

griev·ous (grē'vəs), *adj.* severe; serious.

grim·ly (grim'lē), *adv.* sternly; severely

gro·tesque (grōtesk'), *adj.* odd or unnatural looking; ugly.

grov·el·ing (grŭv'ə ling) *v.* 1. acting in an overly humble manner in order to please or ask a favor. 2. crawling along on the ground.

gru·some (grōō'səm), *adj.* hideous; causing horror or repulsion.

H

hal·ting·ly (hôl'ting lē), *adv.* in a doubtful manner and with frequent stops.

ham·string·ing (ham'string'ing), *v.* 1. making powerless by preventing free movement.

hard·i·hood (här'dē hood'), *n.* courage; toughness; the ability to stay alive under harsh conditions.

hav·oc (hav'ək), *n.* ruin; destruction.

heart·y (här'tē), *adj.* 1. strong; healthy. 2. sincere; cordial.

hes·i·tant·ly (hez'ə tənt lē), *adv.* in a manner that holds back, as if undecided or fearful.

Excerpt: *Voices in Literature, Language, and Composition 2.* Cline, Williams, Donlan (Ginn and Company, 1969) 472.

Suggested Criterion Referenced Measurement

Given a list of words for a content selection, the student will write in his own words their definitions after consulting the glossary.

Part IV REINFORCEMENT

OBJECTIVE

To enable the teacher to call students' attention to technical vocabulary while learning the key concepts through vocabulary reinforcement.

INSTRUCTIONAL CONCEPT

In vocabulary reinforcement the presented vocabulary develops skills and also an understanding of the subject content. Skills and concepts are developed simultaneously. Vocabulary skills are taught as they apply to the key concepts. Vocabulary reinforcement aids the understanding of the course content.

While understandings at the literal level are rapidly learned they foster word naming rather than meaning. Reinforcement at the literal level is useful for students who are as yet unable to handle understanding at the interpretive level. Interpretive level reinforcement demands that the student analyze relationships among terms. The student learns to consider the importance of ideas in relation to the content being presented.

SUGGESTED APPLICATION WITH LEARNERS

I MULTIPLE MEANING

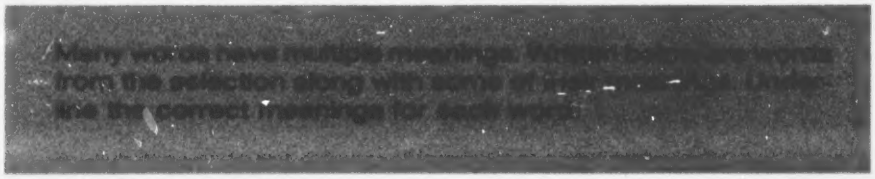
Reinforcement in which the vocabulary word is provided along with the correct meaning(s) and several incorrect meanings is constructed on the literal level.

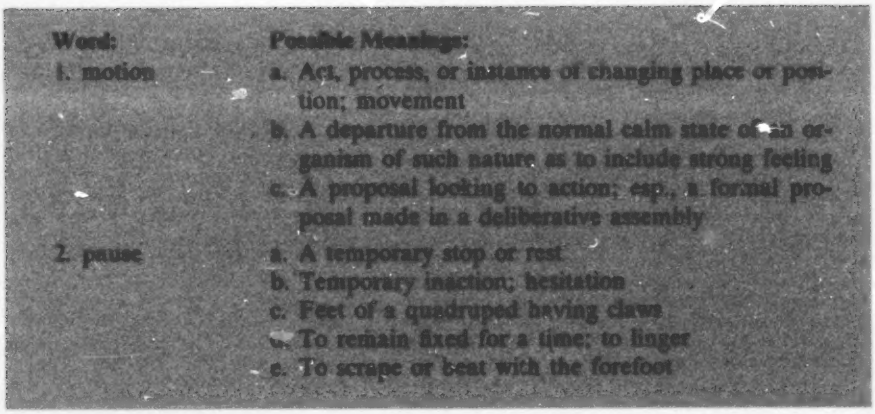
Reinforcement through the use of multiple meanings can be constructed on the interpretive level when the vocabulary word is not provided.

Suggested Teaching Tactic

Direct the student's attention to the words provided. Have him read the possible meanings and select the correct meanings for each word.

Example—Literal Level

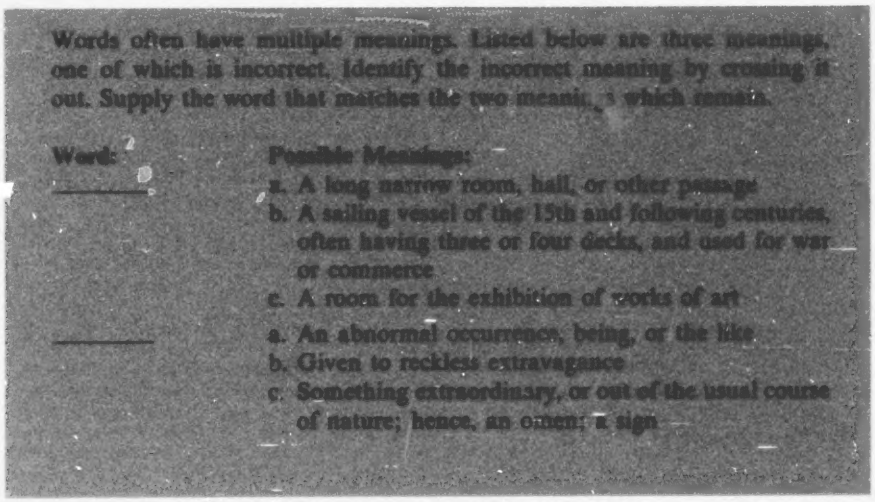




Word:	Possible Meanings:
1. motion	a. Act, process, or instance of changing place or position; movement b. A departure from the normal calm state of an organism of such nature as to include strong feeling c. A proposal looking to action; esp., a formal proposal made in a deliberative assembly
2. pause	a. A temporary stop or rest b. Temporary inaction; hesitation c. Feet of a quadruped having claws d. To remain fixed for a time; to linger e. To scrape or beat with the forefoot

Have the student attend to the meanings provided; identify the one incorrect meaning; and supply the vocabulary word itself.

Example—Interpretive Level



Words often have multiple meanings. Listed below are three meanings, one of which is incorrect. Identify the incorrect meaning by crossing it out. Supply the word that matches the two meanings which remain.

Word:	Possible Meanings:
_____	a. A long narrow room, hall, or other passage b. A sailing vessel of the 15th and following centuries, often having three or four decks, and used for war or commerce c. A room for the exhibition of works of art
_____	a. An abnormal occurrence, being, or the like b. Given to reckless extravagance c. Something extraordinary, or out of the usual course of nature; hence, an omen; a sign

Suggested Criterion Referenced Measurement

Given words with multiple meanings, the student will either identify the correct meanings for each word (literal) or will provide both the correct words and identify the meanings (interpretive).

SUGGESTED APPLICATION WITH LEARNERS

2 CATEGORIZING

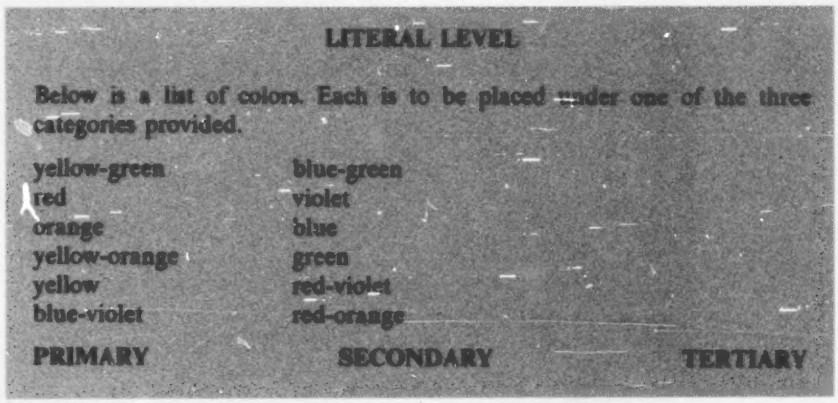
Literal reinforcement in the form of categorizing provides both the vocabulary terms and the categories. Interpretive categorization

provides the words but not the categories. The students must look for relationships among meanings of words. More than recall is required.

Suggested Teaching Tactic

Provide the student with a series of vocabulary words and three or more category headings. Direct the student to place the words under the appropriate category.

Content Example—Art



LITERAL LEVEL

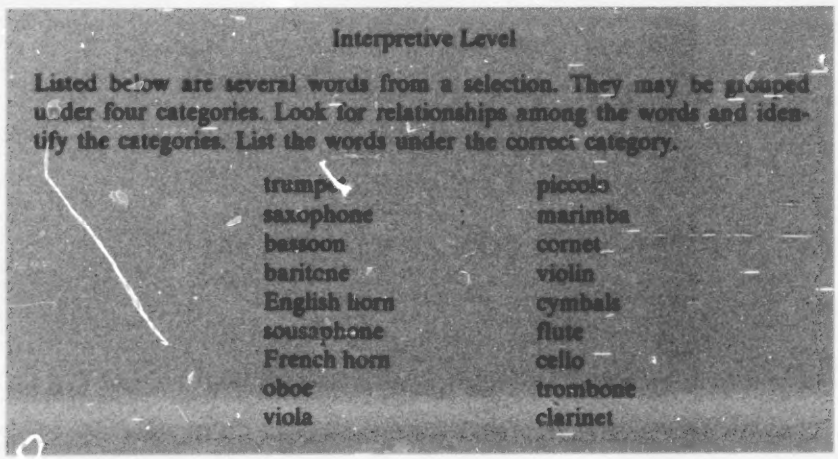
Below is a list of colors. Each is to be placed under one of the three categories provided.

yellow-green	blue-green
red	violet
orange	blue
yellow-orange	green
yellow	red-violet
blue-violet	red-orange

PRIMARY SECONDARY TERTIARY

Give the student a series of vocabulary words with directions to provide the categories and to place the words under the appropriate category.

Content Example—Music



Interpretive Level

Listed below are several words from a selection. They may be grouped under four categories. Look for relationships among the words and identify the categories. List the words under the correct category.

trumpet	piccolo
saxophone	marimba
bassoon	cornet
baritone	violin
English horn	cymbals
sousaphone	flute
French horn	cello
oboe	trombone
viola	clarinet

	double bass snare drum	timpani harp	
_____	_____	_____	_____

Suggested Criterion Referenced Measurement

Given a list of vocabulary words, the student will either list the words under the appropriate categories supplied (literal) or will identify the categories and list the words under the appropriate categories (interpretive).

SUGGESTED APPLICATION WITH LEARNERS

3 WORD PUZZLE

When recall of definitions is demanded, the reinforcement is constructed on the literal level.

Suggested Teaching Tactic

Provide the student with definitions and the number of letters in each word. Give additional help by placing one word vertically through the letter spaces.

Content Example—Music

LITERAL LEVEL

As you solve this puzzle, look at the definitions provided. Think of a word which fits the definition, has the same number of letters as the number of spaces provided on the corresponding line, and has the given letter in the same position as indicated.

1. _ _ _ _ _ A _ _ _ _
2. _ _ _ C _ _ _ _ _ _ _ _ _ _
3. _ _ _ _ _ _ C _ _
4. _ _ _ _ _ _ E
5. _ _ L _ _ _ _ _ _
6. _ _ _ _ _ _ E
7. _ _ _ R _ _ _
8. _ _ _ A _ _ _
9. _ _ _ _ _ _ _ N _ _ _
10. _ _ _ D _ _
11. _ _ / _ _ _ _ O

Definitions:

1. moderate tempo
2. decreasing in loudness
3. lively
4. sweet
5. quick tempo
6. loud
7. slow and broad
8. soft
9. increasing in loudness
10. beginning or ending
11. smooth

Direct the student to use recall or word definitions to complete the puzzle exercise. This format also fosters the use of word recognition skills.

Content Example—Art

LITERAL LEVEL

Follow the directions and supply the correct vocabulary word.

1. Give the two-syllable French word which means pasting or to paste. It is a design made by pasting to a background bits of paper and other materials.
   __ __ __/__ __ __ __
2. Give the three-syllable word which means the imaginary line where the earth and the sky meet.
   __ __/ __ __/ __ __ __
3. Give the three-syllable word which is made up of two Latin words: *specere*—to see, and *per*—through. This word means the technique or process of representing on a plane or curved surface the spatial relation of objects as they might appear to the eye.
   __ __ __/__ __ __ __/__ __ __ __

Suggested Criterion Referenced Measurement

Given a word puzzle on either the literal or the interpretive level, the student will provide the correct vocabulary word to complete the puzzle.

SUGGESTED APPLICATION WITH LEARNERS

4 ANALOGY QUESTIONS

The analogy question tests the ability to grasp a relationship between words and to apply this relationship to other words. The analogy tests vocabulary as well as the ability to reason. The reader must be able to think clearly and to avoid detractors.

In mathematics this type of situation is expressed as a proportion problem.

4 : 9 :: 8 : X

Analogy questions are written in this mathematical form.

sharp : blunt :: hot : X

This is read:

sharp is to blunt as hot is to ?

There are three general forms of analogy questions.

1. A common form presents two words which have some relationship to each other. These words are followed by a third word which is related to one word in a group of choices in the same way that the first two words are related.

sharp : blunt :: hot :
(a) burn (b) cold (c) heat (d) warm

Sharp and blunt bear an opposite relationship. Hot and cold have the same type of relationship. Therefore, (b) is the correct answer.

2. A second form of analogy begins with two words which have some specific relationship to each other. These are followed by four or five pairs of words from which the reader selects the pair which is related in the same way as the words of the first pair are related to each other.

enormous : huge ::
(a) rat : rock (b) muddy : unclear
(c) bank : kitchen (d) black : white

Enormous and huge are synonyms. Muddy and unclear are synonyms. The other choices do not possess this same relationship. Therefore, (b) is the correct choice.

3. A third form is that in which one of the two relationships is not specified. From choices provided, regardless of the position, the reader selects the one choice which completes the relationship with the other three items.

submarine : fish ::
(a) kite (b) truck (c) feather (d) tweet
bird

Both a submarine and a fish are found in the water. Both a kite and a bird are usually seen in the air. Therefore, (a) is the correct answer.

Suggested Teaching Tactic

Using the chalkboard, demonstrate the initial step of determining the relationship between the first two words. One at a time, slowly, provide the student with a variety of possible relationships. Initially, give the student the type of relationship used along with the analogy.

Kinds of relationships:

1. Purpose relationship
   glove : ball
2. Cause and effect relationship
   face : fatigue
3. Part : Whole relationship
   snake : reptile
4. Part : Part relationship
   tail : ear
5. Action to object relationship
   kick : football
6. Object to action relationship
   bread : bake
7. Synonym relationship
   few : sparse
8. Antonym relationship
   little : big
9. Place relationship
   Columbus : Ohio
10. Degree relationship
    cool : cold
11. Characteristic relationship
    ignorance : poverty
12. Sequence relationship
    October : November
13. Grammatical relationship
    jump : push
14. Numerical relationship
    3 : 12
15. Association relationship
    angel : good

After the student becomes competent in determining the relationship between the first two words, provide the opportunity for him to find the same relationship among choices which follow the first two words.

Given the following analogy, first determine relationship between the first two words. Next select the fourth word which will make the second word pair show the same relationship as the first word pair.

engine : engineer :: airplane :
(a) passenger (b) pilot (c) caboose (d) coal

Consider the relationship of the engine to the engineer. The engineer "drives" the engine.

Consider, then, what would "drive" the airplane.

Say:
Engine is to engineer as
(a) airplane is to passenger
(b) airplane is to pilot
(c) airplane is to caboose
(d) airplane is to coal

(b) is the correct answer for the pilot "drives" the airplane.

Provide the student with a variety of analogies so that he may practice completing the two steps needed to solve them.

Form 1:
Valentine's Day : February ::
Thanksgiving :
(a) turkey (b) November (c) Thursday (d) snow

Form 2:
pig : pork ::
(a) scrambled : egg
(b) veal : calf
(c) apple : apple pie
(d) steer : beef

Form 3:
tusk : elephant ::
(a) tooth (b) fang (c) hoof (d) antler
deer

When student competence in completing the analogies has been displayed, allow time for the student to construct his own analogies. Encourage his use of new vocabulary words. Direct his attention to the use of the three forms.

Suggested Criterion Referenced Measurement

Given a number of vocabulary words, the student will use a selection of these words to construct three analogies utilizing the three general analogy forms.

SUGGESTED APPLICATION WITH LEARNERS

5 USING WORDS WHICH CONNOTE FEELINGS

The recognition and selection of the appropriate word to convey the desired meaning is necessary as the student broadens his vocabulary. He becomes able to use denotation and connotation.

Denote implies all that pertains to the definition of the word. Connote implies all ideas that are suggested by the term. All words which represent ideas have connotations.

Personal connotations are based on the experience of the individual. The way in which the individual reacts to ideas and objects, and therefore, to the words which represent those referents, is based on personal experience.

General connotations are made when the reaction of the majority of people to a specific word is comparable.

Words can touch the emotions of the individual who hears or sees them. Such words can arouse a person to make a decision. Prejudices and biases can be aroused.

Suggested Teaching Tactic

Provide the student with words that arouse pleasant or unpleasant feelings. Promote discussion and random additions to the list before the student locates additional words from his text.

Place the words listed below into the three categories provided according to your personal feelings.

	PLEASANT	UNPLEASANT	NO FEELING
capitalist			
cigar			
velvet			
ice cream			
liberty			
prison			
dictator			

Read the entire passage straight through. Consider your immediate reaction to this man. Select two or more categories under which you might classify the words which arouse some feeling within you. Categorize these words.

Content Example—Literature

He was an undersized little man, with a head too big for his body—a sickly little man. His nerves were bad. He had skin trouble. It was agony for him to wear anything next to his skin coarser than silk. And he had delusions of grandeur.[1]

He was a monster of conceit. Never for one minute did he look at the world or at people, except in relation to himself. He was not only the most important person in the world, to himself; in his own eyes he was the only person who existed. He believed himself to be one of the greatest dramatists in the world, one of the greatest thinkers, and one of the great-

est composers. To hear him talk, he was Shakespeare,* and Beethoven,* and Plato,* rolled into one. And you would have had no difficulty in hearing him talk.

Excerpt: *Voices in Literature, Language, and Composition 2*, Cline, Williams, and Donlan, (Ginn and Company, 1969)

Name-calling is a method of arousing an unfavorable reaction. Such words as "spy," "dictator," or "hypocrite" generally create unpleasant feelings. Direct the student's attention to sentences which contain the type of words which connote unfavorable reactions.

Circle the words which connote an unfavorable feeling.

1. The cowardly team lost the ball before making a goal.
2. Tim is provoking the other children to fight.
3. Those people are waging war on the others.

The glittering generality causes the reader to react favorably. Words such as "freedom," "spacious," or "liberty" are examples of this type of word. Have the student complete sentences supplying words that would create a favorable reaction for the reader.

By adding an appropriate glittering generality, complete the following sentences to cause the reader to have a favorable reaction.

1. The _____ cottage was nestled in the woods.
2. The crowd was obviously in support of _____.
3. The governor made a speech concerning _____ in America.

Emotionally weighted words bias an audience. Different types of propaganda are often used to sway readers for or against someone or something. Transfer is needed for the reader to associate one idea with another, even though the two ideas are not actually connected.

Direct the student's interest to the use of transfer propaganda in advertisements. Have him note the vocabulary used as well as the visual transfer.

Using the media, locate visual examples of transfer propaganda. Regard such illustrations as a lovely girl selling a new car or a famous athlete using a particular after-shave lotion.

Locate key propaganda words and phrases such as "everyone uses" or "the brand of the in-crowd."

The selection and use of words to describe a person or an object will color the reader's feelings. Provide the student with a selection of words each of which, while implying a different attitude, has a similar relationship.

Using the words provided below, rearrange the words in the order of improved attitude. Begin with words that have insulting connotations and end with the words that are flattering.

kid, boy, young adult, young person, juvenile, adolescent, lad, urchin, future citizen, teenager, young man, youngster, teeny-bopper.

Suggested Criterion Referenced Measurement

Given a paragraph with key words missing, the student will add the appropriate words to create positive feelings toward the subject. He will then, using the same paragraph, add the appropriate words to create negative feelings toward the subject.

SUGGESTED APPLICATION WITH LEARNERS

UNDERSTANDING RELATIONSHIPS

Vocabulary reinforcement which requires that the student understand the relationship involved is constructed on the interpretive level. The student is given the opportunity to interpret the relationships between the given words.

Suggested Teaching Tactic

Provide the student with the opportunity to draw relationships between vocabulary words.

Content Example—Science

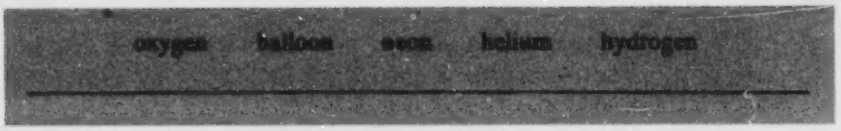
Five words are listed on each line. Circle the three words in each line which have something in common. Under each line write the word(s) expressing this relationship.

Mars Jupiter Star Saturn Comet

_____

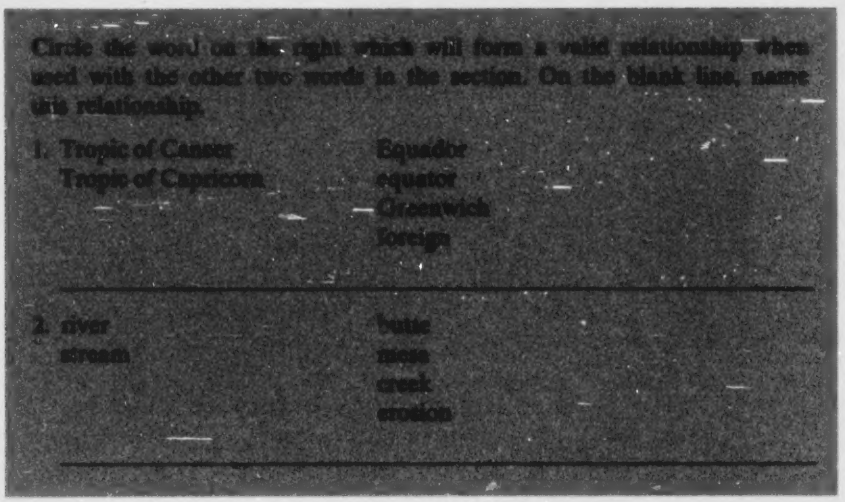
line division arc addition multiplication

_____



Give the student two words which have a valid relationship. Also, provide four words from which the student may select word(s) that will join the original two to make the same valid relationship. Ask the students to describe what this relationship is.

Content Example—Social Studies



Suggested Criterion Referenced Measurement

Given small groups of vocabulary words, the student will demonstrate the ability to interpret and understand the relationships by appropriately grouping the words and naming the relationship represented.

SUGGESTED APPLICATION WITH LEARNERS

7 VERTICAL VOCABULARY DEVELOPMENT-LEVELS OF ABSTRACTION

One method of strengthening a student's ability to deal with vocabulary meaning is through vertical vocabulary development. As a student begins to read, most of his vocabulary consists of the most concrete words. Generally, he begins with words which represent things he can touch (nouns). As he masters this level of reading he moves up on the ladder of abstraction into his speaking and listening vocabularies.

An example of this would be to move from concrete to abstract, as *beagle* to *dog* to *vertebrate*. This progression could then possibly move on through such descriptions as *animal* and *matter*.

However, words at these higher levels of abstraction are often not in the student's reading, speaking, or listening vocabularies. For this student, therefore, words beyond the concrete levels do not provide a clearer picture of the object in question. This student will need more experiences before moving beyond the concrete.

Direct experiences provide the basis for vertical vocabulary development. Often, to provide experiences for movement up through the levels of abstraction, the teacher involves the student through contrived or dramatized experiences, demonstrations, field trips, or exhibits. Television, motion pictures, radio, recordings and still pictures can also provide the background necessary for vertical vocabulary development.

Visual symbols which represent ideas and processes are abstract concepts. Generally it is necessary to provide repeated visual experiences before student mastery is evident.

A verbal symbol, for which there is no one concrete form of visualization, is an abstract concept. While words such as *love* or *honor* can be exemplified through various pictures and explanations, a student may best achieve understanding of this abstract concept through relating the word to his personal experiences.

Suggested Teaching Tactic

Direct the student to consider a variety of nouns, each of which creates a visual image. Have the student list these nouns, according to their vertical vocabulary development, from the concrete to the more abstract.

Instructional Example

Reorder the following groups of nouns, starting at the bottom with the concrete and working up to the more abstract.

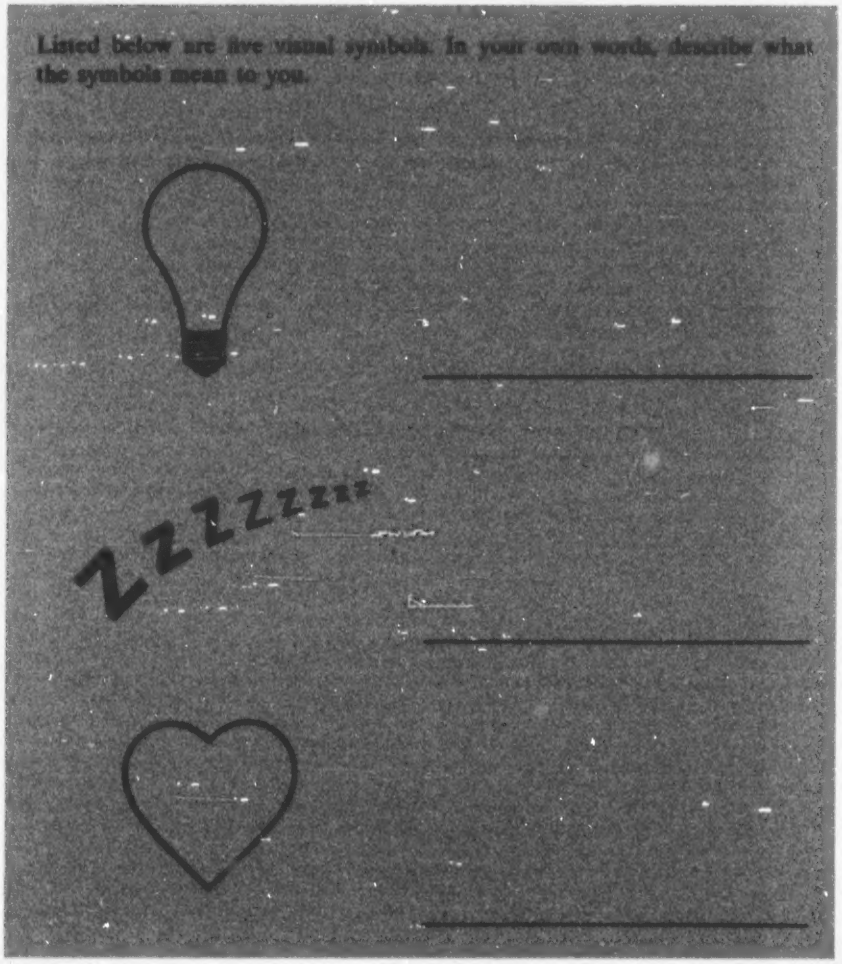
carrot	coat	Equus caballus
plant	wearing apparel	horse
vegetable	outer garment	mammal
Daucus carota	ski jacket	domestic animal

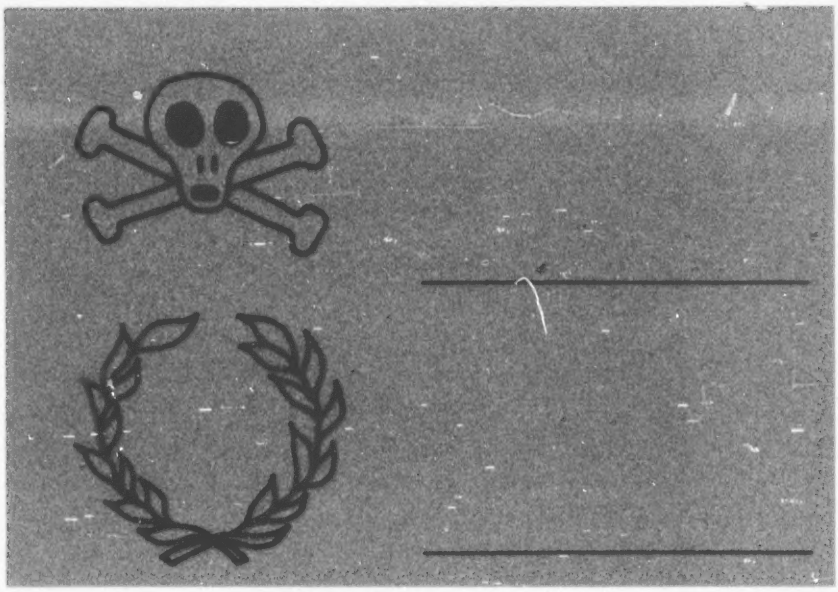
Provide the student with a paragraph in which some of the nouns have been underlined. Direct him to replace the underlined words with words that would be higher on the ladder of abstraction.

The children walked slowly along the road. Before long they were passed by a truck. Disregarding their cries, their dog chased the truck to the bridge. There the dog sat down by a rock to await the arrival of the children.

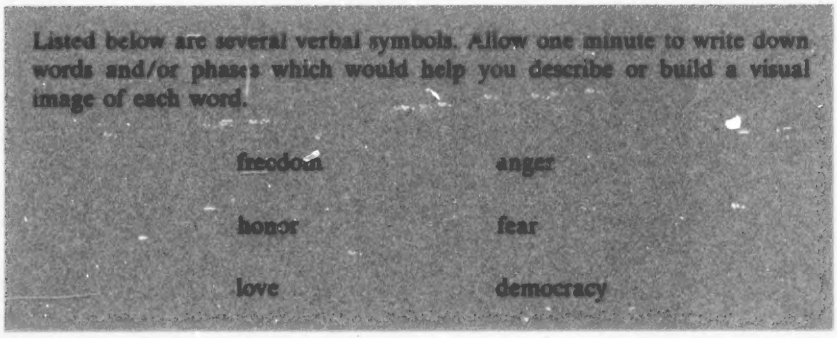
Direct the student's attention to a variety of visual symbols. Have the student use his own words to describe what ideas or processes visual symbols represent.

Instructional Example





Provide the student with several verbal symbols. Allow a limited amount of time for the student to write words or phrases that would describe this abstract concept.


Listed below are several verbal symbols. Allow one minute to write down words and/or phases which would help you describe or build a visual image of each word.
freedom
anger
honor
fear
love
democracy

Give the student a content selection to read. Direct his attention to words which represent abstract concepts. Allow him the opportunity to reflect on the comprehensive meaning of these words.

Content Example—Social Studies

The Constitution of the United States guarantees us certain rights. As you read from the Bill of Rights, circle the words which represent abstract concepts.

ARTICLE I.

Bill of Rights.

§1. Inalienable Rights.

All men are, by nature, free and independent, and have certain inalienable rights, among which are those of enjoying and defending life and liberty, acquiring, possessing, and protecting property, and seeking and obtaining happiness and safety.

Excerpt: *Ohio: Geography, History, and Government*, Carl H. Roberts (Laidlaw Brothers, Publishers, 1973)

Select one of these abstract concepts and describe, in your own words, how this concept is reflected in your own life.

How would these same rights protect others from you as you pursue your own independence?

Suggested Criterion Referenced Measurement

Given a content selection, the student is able to locate words which represent abstract concepts and adequately supply comprehensive meanings for these words.

GLOSSARY

Abstract concepts	words which are disassociated from any specific instance and are difficult to understand. Such words express a quality apart from an object (as "honesty" or "pride")
Advance organizer	a significant concept in the preparation of a student for reading. Those teaching tactics employed prior to silent reading which provide the student with a content framework concerning that which he is about to read. This could occur in the form of vocabulary development or purpose setting
Concrete concepts	words which are characterized by or belonging to immediate experience of actual things or events. These are the easiest terms to comprehend as they can be visualized (as "table" or "circus")
Directed reading thinking activity (DRTA)	an instructional framework which applies to any content subject. Preparing the student involves motivation, background information, review and vocabulary development. Guiding the student provides for purpose setting prior to reading and direction during reading through a variation of a guide. Reflecting with the student occurs during group discussion,extension activities, further assignment and all inclusive evaluation
Syntactic frames	an arrangement of words forming a sentence which has a blank. The manner in which the words are related to one another requires completion of the blank
Technical vocabulary	the special language present in each content subject which a student must learn in order to read and react successfully to various sources related to the subject. The basic concepts in any discipline which are expressed in nomenclature with meaning peculiar to that discipline

SELF-CORRECTIVE POST TEST

Check the techniques for instruction which would be emphasized with students in teaching the meaning of the italicized words in each of the selections below. More than one technique may be used.

Perhaps a knight or maker of armor dropped ink on a crest cut in the metal. Wiping away the ink, he saw that some caught in the lines would print. In some such way there was born *line engraving.*

To make a line engraving the design is cut into a thin copperplate with a slanting tool called a graver. It rests with a wooden knob against the palm of the hand which makes it plow the metal. The shavings are scraped away leaving a sharp line.

_____ synonym
_____ antonym
_____ context
_____ define
_____ physical action

All edges that are visible when looking at an object to be drawn are called *visible lines.* They are heavy lines. These visible edges should be the first thing to catch the eye of the person using the drawing.

_____ synonym
_____ antonym
_____ context
_____ define
_____ physical action

Sometimes the lines are cut with a rounded point held like a pencil. The shavings are not scraped away, so that, adhering, they leave a richer line. This method is known as *dry point.*

_____ synonym
_____ antonym
_____ context
_____ define
_____ physical action

Check the guides for independence which could be used with students in teaching the meaning of the italicized words in each of the selections below. More than one guide might be used.

"Hey, Pierre," Jacques laughed. "Maybe you got the gout,[4] hey?"

"*Mais oui,*[5] *Jacques,*" Pierre said a bit uncertainly. "One grows old. One's legs get tired."

"You should teach that horse to carry the milk to the front door for you," Jacques told him. "He does everything else."

---

[4]GOUT: a painful disease that affects the joints.
[5]MAIS OUI (mā wē'): yes

_____italicized words
_____parenthetical
_____contextual clue
_____marginal notations

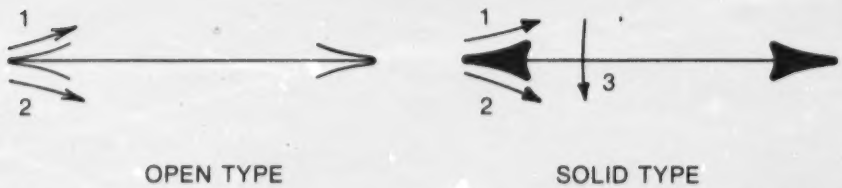
_____footnote
_____illustrations
_____pronunciation keys
_____word lists
_____glossaries

On the other hand, *sleet* is formed when rain freezes as it falls. This form of precipitation usually occurs during a temperature *inversion* (ihn-VUHR-zhuhn), when the air near the surface of the earth is colder than the upper air.

For accurate weather predictions, it is necessary to measure the amount of rain that falls in a given area in a certain length of time. For this purpose, weathermen use a *rain gauge*. The newest type of rain gauge measures the amount of rain electrically. The gauge records the amount of rain automatically on a moving chart.

_____italicized words
_____parenthetical
_____contextual clue
_____marginal notations

_____footnote
_____illustrations
_____pronunciation keys
_____word lists
_____glossaries



G-3. *Open and solid arrowheads are in common use.*

_____italicized words
_____parenthetical
_____contextual clue
_____marginal notations

_____footnote
_____illustrations
_____pronunciation keys
_____word lists
_____glossaries

Check the technique which could be used with students in reinforcing the meaning of the italicized words in each of the selections below. More than one technique might be used.

The process continues until they become too heavy to remain in the air. They fall to the earth in the form of *hail*. Sometimes, the process is repeated over and over, forming many layers of ice. These very large hailstones can cause great damage. If you broke open a hailstone, what would you see?

_____multiple meaning
_____categorizing
_____word puzzle
_____analogies

_____connotations
_____understanding relationships
_____vertical vocabulary development

Air masses usually form at the tropical or polar regions. An *air mass* is a large volume of air over a certain part of the earth. They are either *warm* or *cold*, depending on where they form. In the United States we find that air masses are of four kinds: (1) Polar Maritime (*m*P), (2) Polar Continental (*c*P), (3) Tropical Maritime (*m*T), and (4) Tropical Continental (*c*T). The polar air masses, formed at the poles, are always colder than the tropical air masses formed at the equator.

_____multiple meaning
_____categorizing
_____word puzzle
_____analogies
_____connotations
_____understanding relationships
_____vertical vocabulary development

Magnets and Magnetism

By Benjamin Franklin's time, scientists were sure of these facts about magnets and magnetism.

1. A magnet attracts iron and steel.
2. The magnetic force is concentrated at places called *poles.*
3. One pole of a magnet points northward, if it is free to do so, and the other points southward; hence the names, *north* (pointing) *pole* and *south* (pointing) *pole*, given to the end of a magnet.
4. The magnetic force can go through some materials, such as wood, paper, or glass.
5. A natural magnet can be used to make other magnets.
6. Like magnetic poles repel each other; unlike poles attract each other.

Here was that strange resemblance: *Like poles repel, unlike poles attract:*
law of magnetism.
Like charges repel, unlike charges attract:
law of electricity.

_____multiple meaning
_____categorizing
_____word puzzle
_____analogies
_____connotations
_____understanding relationships
_____vertical vocabulary development

Using the unit which you are about to teach, determine which words should be selected to be pre-taught. Consider the key concepts, relative value, and student's competence as you make this selection.

From this list of words to be pre-taught, select the five which you believe to be the most important.

1. Determine the instructional technique to be used for each word.
2. Using the text, determine what guides for independence would be used for each word.
3. Determine the method to be used for reinforcing the meaning of each word.

This *Self-Corrective Post Test* form is designed for the convenience of teacher readers to reproduce multiple copies for use as needed.

BIBLIOGRAPHY

Bamman, H. A., V. Hogan, and Charles E. Green. *Reading Instruction in the Secondary School* (Longmens, Green and Company, 1961).

Bond, Guy L. and Miles A. Tinker, *Reading Difficulties–Their Diagnosis and Correction* (Appleton-Century-Crofts, 1967).

Botel, Morton, *How to Teach Reading* (Pennsylvania Valley Publishers, 1963).

Cury, Robert L., "Teaching the Decoding Skills," in Lawrence E. Hafner (ed.) *Improving Reading in Secondary Schools* (Macmillan, 1967).

Deighton, Lee C., *Vocabulary Development in the Classroom* (Teachers College, Columbia University, 1959).

Ekwall, Eldon E., *Locating and Correcting Reading Difficulties* (Merrill Publishing Company, 1970).

Farr, Roger, James Laffey, and Carl Smith, "Taxonomy of Evaluation Techniques for Reading Programs," Indiana University, U. S. Office of Education Contract 0-8-980812. November, 1968.

Gagon, Glen S., "Modern Research and Word Perception," *Education*, April 1966, 86, 464-472.

Heilman, Arthur, *Phonics in Proper Perspective* (Charles E. Merrill, 1964).

Herber, Harold L. (ed.), *Developing Study Skills in Secondary Schools* (International Reading Association, 1965).

Herber, Harold L., *Teaching Reading In Content Areas* (Prentice-Hall, Inc., 1970).

Karlin, Robert, *Teaching Reading in High School* (Bobbs-Merrill Company, 1964).

Klein, Howard A. (ed.), *The Quest for Competency in Teaching Reading* (International Reading Association, 1972).

Kneer, Leo B. (ed.), *Guidebook for Tactics in Reading–A* (Scott, Foresman, and Company, 1972).

Lefevre, Carl A., "Contributions of Linguistics," *Instructor*, March 1965, 77, 103-105.

Smith, H. P. and E. V. Dechant, *Psychology in Teaching Reading* (Prentice-Hall, 1961).

Spache, George D. and Mary E. Baggett, "What Teachers Know About Phonics and Syllabication," *The Reading Teacher*, Vol. 19 (November 1965) p. 96-99.

Strang, Ruth, Constance McCullough and Arthur E. Traxler, *The Improvement of Reading* (McGraw-Hill, 1967).

Robinson, H. Alan and Ellen Lamar Thomas, (eds.), *Fusing Reading Skills and Content* (International Reading Association, 1969).

Russell, David and Etta E. Karp, *Reading Aids Through the Grades* (Teacher's College, Columbia University, 1965).

Wilson, Robert M. and Mary Anne Hall, *Programmed Word Attack for Teachers* (Charles E. Merrill, 1968).

COMPETENCY CRITERIA

The following characteristics of effective content-related reading instruction may serve as self-appraisal guidelines.

Students are enabled to gain information, knowledge, wisdom and enjoyment from reading, for my teaching procedures include:

_____ Planning and tailoring my teaching to accommodate the wide range of reading strengths and weaknesses represented within the class.

_____ Fusing reading with other components of language (listening, speaking, and writing) to reinforce meaning.

_____ Relating the content to the varied experiential background of the students.

_____ Encouraging students to react to the meaning of print content by thinking critically about it.

_____ Utilizing many types of reading sources comprising multi-readability levels.

_____ Teaching vocabulary and comprehension skills on various levels to assure that all students experience success.

_____ Guiding silent reading through pre-reading preparation, vocabulary assistance, and skillful questioning.

_____ Providing for varied uses of reading in problem solving, gaining information, and enjoyment.

_____ Modeling positive attitudes for students by being a high interest reader myself.

_____ Being committed to improve reading abilities and book interest within the class and school.